Remarks

Applicants have received and carefully reviewed the Final Office Action mailed August 23, 2007. No amendments are presented herein, leaving claims 1-58 and 61-71 pending. Reconsideration and allowance of the pending claims are respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

Applicants respectfully traverse the Examiner's apparent rejection of claim 57 under 35 U.S.C. §112, second paragraph, as indefinite. While the rejection refers to claim 55, it is noted that the body of the rejection refers to claim 57. Applicants believe the Examiner intended to reject claim 57 and will respond accordingly. The Examiner has objected to "heating and/or cooling" as being indefinite. One of skill in the art, having read and understood the specification, would understand claim 57 to refer to a method of controlling an HVAC system that has a fan that normally operates during heating operations, during cooling operations, or during heating and cooling operations. Claim 57 is correct as written. Favorable reconsideration is respectfully requested.

Rejections under 35 U.S.C. § 102(e)

Applicants respectfully traverse the Examiner's rejection of claims 54-57 under 35 U.S.C. §102(e) as anticipated by Alles, U.S. Patent No. 6,983,889. In order to anticipate, the cited reference must disclose each and every claimed element, and "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). See MPEP § 2131. Alles clearly fails to do so.

In particular, claim 54 recites:

> 54. (previously presented) A method for controlling an HVAC system that is adapted to modify and control at least one environmental condition of an inside space in accordance with a first set point, the method comprising:

> deactivating at least a first part of the HVAC system to not modify and control at least one environmental condition of the inside space in accordance with the first set point;
>
> monitoring the environmental condition in the inside space that the HVAC system is no longer modifying and controlling; and
>
> automatically activating at least the first part of the HVAC system to again modify the environmental condition in the inside space if the environmental condition in the inside space passes a second set point, wherein the second set point is different than the first set point.

As can be seen, claim 54 recites a method of controlling an HVAC system using a first set point and a second set point that is different from the first set point. At least a first part of the HVAC system is deactivated to not control an at least one environmental condition in accordance with the first set point. At least the first part of the HVAC system is automatically activated to again control the environmental condition when the environmental condition passes the second set point. It should be noted that it is the same portion of the HVAC system that is deactivated in accordance with the first set point and activated in accordance with the second set point.

The cited portions of Alles do not disclose the claimed invention, and in particular, the identical invention in as complete detail as is contained in the claim, as is required for anticipation. Instead, the cited portions of Alles appear to be directed to setting heating and cooling temperature set points. In many cases, the heating and cooling temperature set points are not the same. The Examiner has asserted that Alles discloses a first set point (2113) and a second set point (2116). However, one of ordinary skill in the art would clearly recognize that set point (2113) is a cooling temperature set point and that set point (2116) is a heating temperature set point. Alles discloses nothing more than setting standard heating and cooling temperature set points.

In accordance with Alles, cooling equipment may be activated if an environmental temperature meets or perhaps exceeds the set point (2113). Likewise, heating equipment may be activated if an environmental temperature meets or perhaps drops below the set point (2116). However, one of skill in the art would clearly recognize that a cooling temperature set point is not used to activate or deactivate a heating element. Likewise, a heating temperature set point is

not used to activated or deactivate a cooling element. Thus, Alles cannot be considered as deactivating a first portion of an HVAC system in accordance with a first set point and activating the same first portion of the HVAC system in accordance with a second set point. This is a claimed feature clearly missing from the cited reference.

The Examiner has asserted, in the Response to Arguments (page 25 of the instant Action) that Alles teaches a method for controlling an HVAC system in which, for example, a first set point may be set to 32° and a second set point may be set to 31°. When the temperature hits the first set point, the heater is deactivated. When the temperature drops to the second set point, the heater is reactivated. There is no reasonable basis, within the teachings of Alles, for this assertion. Alles does not describe or suggest two distinct set points that are used to control operation of a particular portion (e.g. the heater) of an HVAC system, and thus the Examiner's assertion is not based within the teachings of the reference and instead appear to be little more than reconstructive hindsight.

In view thereof, Alles cannot be considered as describing the claimed invention, in which at least a first part of an HVAC system is deactivated to not control an at least one environmental condition in accordance with a first set point and is automatically activated to again control the environmental condition when the environmental condition passes a second set point that is different from the first set point. For at least this reason, claim 54 (and hence claims 55-56 depending therefrom) is clearly patentable over Alles.

Independent claim 57 recites:

> 57. (original) A method for controlling an HVAC system that has a fan that normally operates during heating and/or cooling operations, the method comprising:
>
> requesting a time indicator from a user;
>
> over-riding the fan for a time corresponding to the time indicator provided by the user; and
>
> returning to normal fan operation after the time expires.

As can be seen, claim 57 is directed to a method of controlling an HVAC system that has a fan. The method includes steps of requesting a time indicator, over-riding the fan for a time period

corresponding to the time indicator, and then returning to normal fan operation thereafter. Alles does not disclose the claimed invention.

Instead, Alles appears to disclose permitting the user to make particular settings for fan speed for each of one or more time periods during the day. Alles references these time periods, for example, as sleeping, active, empty and relaxing. The cited portions of Alles (cited by the Examiner) merely describe making one or more fan settings such as air circulation rate, permitted noise, and the like, for these time periods. While Alles may, for example, permit the user to make a particular setting for a particular time period, and perhaps a different setting for a different time period, this pertains to the regular schedule of the thermostat. This is simply not the same as permitting the user to enter a time indicator, over-riding the normal fan operation in accordance with the time indicator and subsequently returning to normal fan operation. One skilled in the art would clearly understand that the normal fan operation refers to the fan setting of the regular schedule of the thermostat. If the Examiner persists in this rejection, Applicants respectfully request that the Examiner explain where in Alles the fan setting over-rides the normal fan operation, and then subsequently returning to normal fan operation, as recited in claim 57. For at least these reasons, it can be seen that claims 54-57 recite elements that are clearly not disclosed by Alles, and that Alles clearly does not disclose the identical invention in as complete detail as is contained in the claim, as is required for anticipation. Therefore, claims 54-57 are believed to be clearly patentable over Alles. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 66-71 under 35 U.S.C. §102(e) as anticipated by Ehlers, U.S. Patent No. 7,130,719. As noted above, in order to anticipate, the cited reference must disclose each and every claimed element, and "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). See MPEP § 2131. Ehlers clearly fails to do so.

In particular, independent claim 66 recites:

66. (previously presented) A method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure, the method comprising:

controlling a first environmental condition using a first control set point;

sensing the first environmental condition outside of the structure; and

adjusting the first control set point if the first environmental condition outside of the structure passes a predetermined value.

As can be seen, claim 66 recites a method for controlling an HVAC system including the steps of controlling a first environmental condition, sensing that first environmental condition outside the structure, and adjusting the first control set point if that first environmental condition outside of the structure passes a predetermined value. It should be noted that claim 66 recites sensing the first environmental condition outside the structure.

As discussed in the previous Amendment, Ehlers is directed to monitoring an indoor humidity and using the indoor humidity to adjust, as necessary, an indoor temperature set point. Ehlers is silent as to monitoring an outdoor humidity. While the Examiner has, in the Response to Arguments (page 25 of the instant Action) asserted that relative humidity must refer to outdoor humidity, the Examiner has no credible basis for making such an assertion. The environment inside of a building has a relative humidity, and the environment outside of the building has a relative humidity. Relative humidity simply refers to how much water is actually present within the air relative to a maximum amount of water that could be held in the air at a given temperature. There is no basis whatsoever for asserting that the relative humidity in Alles must refer to the outside environment.

More specifically, Ehlers' reference to relative humidity provides no indication to one of skill in the art that it is outdoor humidity that is being monitored. In fact, Ehlers does not disclose or suggest monitoring outdoor humidity. The Examiner's assertion is not appropriate. Ehlers does not disclose monitoring an environmental condition outside of the structure. This is a claimed feature not shown by the cited reference. For these and other reasons, claim 66 (and claims 67-71 depending therefrom) are clearly patentable over Ehlers.

Turning now to independent claim 71, the claim recites:

71. (original) A method for controlling an HVAC system that is adapted to modify and control an environmental condition of an inside space of a structure, the HVAC system having a duty cycle that varies with the environmental condition outside of the structure, the method comprising:

controlling the environmental condition in the inside space using a first control set point;

sensing the duty cycle of the HVAC system; and

adjusting the first control set point if the duty cycle of the HVAC system exceeds a predetermined value.

As can be seen, claim 71 recites a method for controlling an HVAC system in which an environmental condition within an inside space is controlled using a first control set point. The duty cycle of the HVAC system is sensed. If the duty cycle of the HVAC system exceeds a predetermined value, the first control set point is adjusted. One of skill in the art, having read the instant application, would understand that a duty cycle provides an indication of how long the HVAC equipment is operating during a given period of time.

In one example, if the outside weather is extremely hot, the air conditioning equipment may run continuously or nearly continuously, thus having a high duty cycle. In extremely cold weather, the heating equipment may run continuously or nearly continuously, thus also having a high duty cycle. In these circumstances, the user may wish to alter a control set point (such as temperature) so that the equipment may not have to run quite as much (e.g. lower duty cycle), and thus may achieve energy savings. Again, in claim 71, the duty cycle may provide an indication of how hard (or how much) the HVAC equipment is operating.

Ehlers does not disclose the claimed invention. Instead, the portion of Ehlers cited by the Examiner relates to adjusting temperature set points in accordance with sensed humidity levels. There is no mention of sensing a duty cycle, much less altering a control set point in accordance with the duty cycle. These are claimed features simply not shown by the cited reference. As noted above, in order to anticipate, the cited reference must disclose each and every claimed element, and "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed.

Cir. 1989). See MPEP § 2131. For at least these reasons, claim 71 is believed to be clearly patentable over Ehlers. Favorable reconsideration is respectfully requested.

Rejections under 35 U.S.C. § 103(a)

Applicants respectfully traverse the Examiner's rejection of claims 1-49 under 35 U.S.C. §103(a) as unpatentable over Alles in view of Liebl (US 5,289,362). One of the requirements of a *prima facie* obviousness rejection is that the cited references must disclose or suggest each and every claimed feature. At a minimum, this requirement has not been met.

Claim 1 reads:

> 1. (previously presented) A method of overriding a programmable regular schedule for a controller having a user interface, the method comprising the steps of:
> providing a regular schedule for the controller;
> providing, simultaneously or sequentially, two or more schedule override choices to a user via the user interface;
> accepting a selection of one of the two or more schedule override choices from the user via the user interface;
> overriding the regular schedule based on the user responses provided via the user interface; and
> automatically returning to the regular schedule.

As can be seen, claim 1 is directed to a method in which a regular schedule is provided for a controller. A user is provided with two or more schedule override choices via a user interface. The user is permitted to select one of the two or more schedule override choices. The regular schedule is overridden by the selected schedule override choice, and then the regular schedule is resumed. Alles clearly fails to disclose such a method.

The Examiner has asserted that Alles teaches two or more schedule override choices, apparently referring to the schedule choices 2101 in the "Comfort-Climate" popup menu 2100 of the PDA interface shown in Figure 21. Applicants respectfully assert that the Examiner has misinterpreted the cited reference, as the cited passages pertain to programming particular parameters of the regular schedule. As one skilled in the art would clearly recognize, the time periods of sleeping, active, empty, and relaxing refer to particular time periods within the regular

schedule. Most conventional programmable thermostats used today have similar regular schedule time periods, which are often referred to as wake, leave, return and sleep. To illustrate, the sleep period may extend from 10 pm to 6 am. The active period may extend from 6 am to 8 am if nobody is home during the day. The empty period may extend from 8 am to 5 pm and may correspond to the time that the occupants are at work, and the relaxing period may extend from 5 pm to 10 pm. These are parts of the regular schedule. One of ordinary skill in the thermostat art would clearly recognize that Alles, in the cited passages, is merely describing programming the regular schedule of the thermostat. One of skill in the art would also clearly recognize that these are not schedule override choices, as asserted by the Examiner.

Applicants previously pointed out that the comfort-climate menu of Alles relates to parameters that are used to program the regular schedule, and not schedule over-rides. A schedule over-ride is clearly something that over-rides a regular schedule, and thus cannot be considered the same as the regular schedule. In response, and in the Response to Arguments section of the instant Office Action (see page 25 of the instant Office Action), and under paragraph (c), the Examiner argues that Alles allows users to set a regular schedule via a UI and make subsequent modifications to the regular schedule via the UI. As such, it appears that the Examiner acknowledges that Alles does not teach or suggest the use of schedule over-rides. Clearly, one skilled in the thermostat art would recognize that making a change to the regular schedule, and then making a subsequent modification to the regular schedule is not: (1) providing, simultaneously or sequentially, two or more schedule override choices to a user via the user interface; (2) accepting a selection of one of the two or more schedule override choices from the user via the user interface; or (3) overriding the regular schedule based on the user responses provided via the user interface. Moreover, making a subsequent modification to the regular schedule is clearly not a schedule over-ride, but rather it a modification of the regular schedule. Moreover, claim 1 recites the step of automatically returning to the regular schedule. If a subsequent modification were made to the regular schedule in Alles, Alles certainly does not disclose automatically returning to the original pre-modified regular schedule.

As can readily be seen, claim 1 (and hence claims 2-10 depending therefrom) recite method steps that are simply not disclosed or suggested by the primary reference (Alles). The Examiner asserts that "Liebl teaches a method of overriding and, therefore, providing a regular schedule and automatically returning to the regular schedule". However, Liebl merely discloses a manual override by having the user simply change the current set-point temperature. Liebl does not teach providing any schedule override choices to a user, and more particularly, to providing two or more schedule override choices to a user via the user interface. Consequently, Liebl cannot be considered as remedying the noted shortcomings of Alles. Indeed, the Examiner admits (see top of page 7 of the instant Action) that Liebl does not explicitly disclose temporarily overriding a regular schedule.

The Examiner appears to also rely upon Ehlers to suggest temporarily overriding a regular schedule. However, Figure 4H (cited by the Examiner) appears to be nothing more than a display screen that permits the user to define when to start and stop time periods of a regular schedule, such as sleep, home and away. This is nothing more than programming a regular schedule as described above with respect to Alles. Figure 4HY of Ehlers does not appear to relate to a temporary override, as the Examiner appears to be suggesting. Thus, Ehlers cannot be considered as remedying the noted shortcomings of Alles and Liebl. For these and other reasons, claim 1 is believed to be clearly patentable over Alles in view of Liebl. For similar and other reasons, dependent claims 2-10 are also believed to be clearly patentable over Alles in view of Liebl (US 5,289,362).

Turning now to claim 11, which recites:

> 11. (previously presented) A controller comprising:
> a programmable regular schedule; and
> a user interface, adapted and configured to provide two or more schedule override choices to a user, and accepting the selection of one of the two or more schedule override choices from the user;
> wherein, the controller enters an override mode for overriding the regular schedule based on the user responses provided by the user interface, and the controller automatically returning to the regular schedule when the selected override choice expires.

As can be seen, claim 11 is directed to a controller that includes a programmable regular schedule, and a user interface adapted and configured to provide two or more schedule override choices to a user, and for accepting the selection of one of the two or more schedule override choices from the user. Claim 11 further recites that the controller enters an override mode for overriding the regular schedule based on the user responses provided by the user interface, and the controller automatically returns to the regular schedule when the selected override choice expires. For at least the reasons set forth above with respect to claim 1, neither Alles, Liebl nor Ehlers, alone or in combination, teach or suggest a controller having the recited elements. For these and other reasons, claim 11 is believed to be clearly patentable over Alles in view of Liebl. For similar and other reasons, dependent claims 12-20 are also believed to be clearly patentable over Alles in view of Liebl (US 5,289,362).

Turning now to claim 21, which recites:

> 21. (previously presented) A controller comprising:
> a programmable regular schedule; and
> a user interface, adapted and configured to provide two or more schedule override choices to a user, and accepting the selection of one of the two or more schedule override choices from the user;
> wherein, the two or more schedule override choices includes a schedule override choice of "Come Home Early" and the regular schedule is temporarily overridden based on the user response provided via the user interface.

As can be seen, claim 21 recites a controller having a programmable regular schedule, and a user interface adapted and configured to provide two or more schedule override choices to a user, and for accepting the selection of one of the two or more schedule override choices from the user. Independent claim 21 further recites that the two or more schedule override choices includes a schedule override choice of "Come Home Early", and that the regular schedule is temporarily overridden based on the user response provided via the user interface. For at least the reasons set forth above with respect to claim 1, neither Alles, Liebl nor Ehlers, alone or in combination, teach or suggest a controller having the recited elements. For these and other reasons, claim 21 is believed to be clearly patentable over Alles in view of Liebl.

In addition, Applicant hereby challenge the taking of Official Notice that user inputs such as "Come Home Early", "Come Home Late", "Get Up Early", "Stay Up Late", "Stay Home" are well known in the art. Conventional thermostats do not have such user inputs for temporary overrides. Taking Official Notice is only proper when the facts are "capable of instant and unquestionable demonstration as being well-known". See MPEP § 2144.03. Applicants respectfully request that the Examiner provide documentary evidence to show the asserted facts.

Turning now to claim 22, which recites:

> 22. (previously presented) A controller comprising:
> a programmable regular schedule; and
> a user interface, adapted and configured to provide two or more schedule override choices to a user, and accepting the selection of one of the two or more schedule override choices from the user;
> wherein, the one or more schedule override choices includes a schedule override choice of "Come Home Late" and the regular schedule is temporarily overridden based on the user responses provided by the user interface.

Claim 22 recites a controller that includes a programmable regular schedule, and a user interface that is adapted and configured to provide two or more schedule override choices to a user, and for accepting the selection of one of the two or more schedule override choices from the user. Independent claim 22 further recites that one or more schedule override choices includes a schedule override choice of "Come Home Late", and that the regular schedule is temporarily overridden based on the user responses provided by the user interface. For at least the reasons set forth above with respect to claim 1, neither Alles, Liebl nor Ehlers, alone or in combination, teach or suggest a controller having the recited elements. Further, neither Alles, Liebl nor Ehlers teach, disclose or suggest a schedule override choice of "Come Home Late", as recited in claim 22.

Turning now to claim 23, which recites:

> 23. (previously presented) A controller comprising:
> a programmable regular schedule; and
> a user interface, adapted and configured to provide two or more schedule override choices to a user, and accepting the selection of one of the two or more schedule override choices from the user;

wherein, the one or more schedule override choices includes a schedule override choice of "Get Up Early" and the regular schedule is temporarily overridden based on the user responses provided by the user interface.

Independent claim 23 recites a controller that includes a programmable regular schedule, and a user interface that is adapted and configured to provide two or more schedule override choices to a user, and for accepting the selection of one of the two or more schedule override choices from the user. Independent claim 23 further recites that the one or more schedule override choices includes a schedule override choice of "Get Up Early", and that the regular schedule is temporarily overridden based on the user responses provided by the user interface. For at least the reasons set forth above with respect to claim 1, neither Alles, Liebl nor Ehlers, alone or in combination, teach or suggest a controller having the recited elements. Further, neither Alles, Liebl nor Ehlers teach, disclose or suggest a schedule override choice of "Get Up Early", as recited in claim 23.

Turning now to claim 24, the which recites:

24. (previously presented) A method of temporarily overriding a regular programmable HVAC schedule in a controller having a user interface, the method comprising the steps of:

providing a regular HVAC schedule;

providing one or more schedule override choices to a user via the user interface;

accepting a user selection of one or more of the schedule override choices from the user via the user interface at a first time; and

overriding temporarily the regular schedule in an override mode that is based on the selected one or more of the schedule override choices, the overriding step beginning at a second time that is later than the first time.

Independent claim 24 recites a method for temporarily overriding a regular programmable HVAC schedule in a controller having a user interface. The method includes providing a regular HVAC schedule; providing one or more schedule override choices to a user via the user interface; accepting a user selection of one or more of the schedule override choices from the user via the user interface at a first time; and overriding temporarily the regular schedule in an override mode that is based on the selected one or more of the schedule override choices.

Independent claim 24 further recites that overriding step begins at a second time that is later than the first time. For at least the reasons set forth above with respect to claim 1, neither Alles, Liebl nor Ehlers, alone or in combination, teach or suggest a controller having the recited elements. Further, neither Alles, Liebl nor Ehlers teach, disclose or suggest beginning an overriding step at a second time that is later than the first time, as recited in claim 24.

For similar reasons to those set forth above, as well as other reasons, independent claims 37 and 44, and the claims dependent therefrom, are also believed to be clearly patentable over Alles, Liebl and Ehlers. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 50-53 under 35 U.S.C. §103(a) as unpatentable over Alles, U.S. Patent No. 6,983,889, in view of Riley et al., U.S. Patent No. 5,395,042, and further in view of Ehlers, U.S. Patent No. 7,130,719. One of the requirements of a *prima facie* obviousness rejection is that the cited references must disclose or suggest each and every claimed feature. At a minimum, this requirement has not been met.

Claim 50 recites:

> 50. (previously presented) A method of modifying a programmable regular HVAC schedule for a controller having a user interface, the method comprising the steps of:
>
> providing one or more schedule override menu choices to a user via the user interface;
>
> accepting a start time, end time or duration, and a temperature response to the one or more of the schedule override menu choices from the user via the user interface at a first time; and
>
> overriding the regular HVAC schedule in an override mode based on the user responses provided by the user interface, the overriding step beginning at a second time, wherein the override mode does not change the regular HVAC schedule.

As discussed above, Alles cannot be considered as providing one or more schedule override choices. Alles certainly cannot be considered, therefore, as providing one or more schedule override menu choices to a user, and accepting a start time, end time or duration and a temperature setting for the override period. Alles cannot be considered as overriding a regular HVAC schedule in accordance with these choices without changing the regular HVAC schedule.

Riley cannot be considered as remedying the noted shortcomings of Alles. Riley appears to be directed to fine tuning operation of an HVAC system by addressing the nonlinear relationships between HVAC equipment operation and the corresponding environmental changes. One of ordinary skill in the art would clearly recognize that Riley does not describe or suggest the claimed features expressly missing from Alles. As discussed above, Ehlers cannot be considered as remedying the noted shortcomings of Alles. Thus, none of Alles, Riley and Ehlers, either separately or in combination, can teach or suggest the claimed invention. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claim 58 under 35 U.S.C. §103(a) as unpatentable over Riley al., U.S. Patent No. 5,395,042, in view of Alles, U.S. Patent No. 6,983,889. One of the requirements of a *prima facie* obviousness rejection is that the cited references must disclose or suggest each and every claimed feature. At a minimum, this requirement has not been met.

Claim 58 recites:

> 58. (previously presented) A method for controlling an HVAC system having a controller including a user interface, the HVAC system is adapted to modify and control at least one environmental condition of an inside space of a structure, the structure having at least one window that opens and closes, the method comprising:
>
> detecting an indication, based on user input into the user interface, that a window is or has been opened;
>
> deactivating at least part of the HVAC system to not modify and control at least one environmental condition of the inside space;
>
> detecting an indication, based on user input into the user interface, that the window is or has been closed;
>
> activating the at least part of the HVAC system that was deactivated to again modify and control the at least one environmental condition of the inside space.

The Examiner acknowledges that Riley does not teach or suggest an indication being provided by a user, but asserts that Alles teaches indications are provided by a user via mode creation and editing mode capabilities concerning temperature, time and naming of modes. As discussed above, Alles appears to teach various Comfort-Climates parameters that are used for

programming the regular schedule, but does not appear to teach or suggest any indications regarding the physical elements of the structure (e.g. the open or closed status of windows). Thus any combination of Riley and Alles must fail to teach or suggest the elements of the claim. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claims 61-64 under 35 U.S.C. §103(a) as unpatentable over Riley et al., U.S. Patent No. 5,395,042, in view of Alles, U.S. Patent No. 6,983,889, and further in view of Ehlers, U.S. Patent No. 7,130,719. Claim 58, from which claims 61-64 depend, is distinguished above as being clearly patentable over the three cited references. As claims 61-64 include the elements of claim 58 and also add further elements, claims 61-64 are also believed to be clearly patentable over the cited art. Favorable reconsideration is respectfully requested.

Applicants respectfully traverse the Examiner's rejection of claim 65 under 35 U.S.C. §103(a) as unpatentable over Riley et al., U.S. Patent No. 5,395,042, in view of Alles, U.S. Patent No. 6,983,889, further in view of Ehlers, U.S. Patent No. 7,130,719, and further in view of Roy, U.S. Patent No. 5,257,736. Claim 58, from which claim 65 depends, is distinguished above as being clearly patentable over Riley et al., Alles and Ehlers. As Roy is not believed to remedy the noted shortcomings of the other references, claim 58 is clearly patentable over all four references. Thus, claim 65 is also patentable over the cited art. Favorable reconsideration is respectfully requested.

Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

Respectfully Submitted,

Date: October 23, 2007

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